

St. Clair River.—Marine City, Mich., 27th, river frozen over; teams crossing. Port Huron, Mich., 27th, river open; 29th to 31st, gorged at mouth of Black River; 30th, ferry-boats making occasional trips to and from the Canadian shore; 31st, navigation suspended. *Lake Erie.*—Toledo, O., 5th, navigation closed. Cleveland, O., 29th, lake frozen as far as visible. Erie, Pa., 3rd, navigation closed. Buffalo, N. Y., 8th, navigation closed. *Niagara River.*—Buffalo, N. Y., 6th, river frozen over; Ft. Niagara, floating ice on the 12th, and from 28th to 31st. *Lake Ontario.*—Charlotte, N. Y., 10th, navigation closed. Oswego, N. Y., 10th, river frozen over below the bridge. *Lake Champlain.*—Burlington, Vt., 25th, lake frozen between docks. *Providence River.*—Providence, R. I., 30th, river frozen as far down as Pawtuxet. *Chesapeake Bay.*—Baltimore, Md., 30th, ice 3 to 5 inches thick formed in harbor, large number of steamers went into winter quarters; 31st, considerable ice in bay as far south as Sandy Point; ice-boats clearing channel. Norfolk, Va., 31st, cold weather continues closing navigation in harbor and rivers. *James River.*—Dover Mines, Va., 31st, river frozen over. Along the immediate *Atlantic and Gulf coasts.*—Newburyport, Mass., 14th to 16th, floating ice in river; harbor free of ice at close of month. Boston, Mass., 31st, considerable floating ice in harbor. Wood's Holl, 30th, harbor covered with ice. New York City, 23rd, considerable floating ice in harbor and rivers. Delaware Breakwater, Del., 30th and 31st, harbor filled with floating ice. Chincoteague, Va., 31st, Assateague channel frozen over. Portsmouth, N. C., 30th, all creeks and inlets frozen over. New River, N. C., 31st, ice strong enough to bear horse and rider. *Corpus Christi Bay.*—Corpus Christi, Tex., 30th, bay frozen along shore and around wharf posts; ice $1\frac{1}{2}$ inches thick. *On the Pacific coast.*—*Columbia and Willamette Rivers.*—December 4th, floating ice in river at Portland, Or., 5th, no ice in river at Portland, but on the Columbia, above the mouth of the Willamette, navigation was closed by the formation of ice. On the Columbia, below the mouth of the Willamette, navigation was closed to sea-going vessels by an ice gorge at Willow bar, though river steamers from Portland were able to reach Astoria via Willamette Slough. 11th, at noon, the ice gorge at Willow bar broke and navigation was thereby opened to sea-going vessels. 12th, navigation between Portland and the Cascades opened. At Umatilla navigation was suspended by floating ice from the 3rd to the 13th; on the 13th and 14th the river was filled with floating logs and telegraph poles, occasioned by the breaking of a boom in the Yakima River, (entailing a loss of \$30,000,) but entirely free from floating ice. On the 29th navigation was again closed by floating ice. *Frazer River, British Columbia.*—Chilliwack, B. C., 5th, ice gorge, (formed during preceding cold week and piled up to a height of 20 feet,) broke during the prevalence of a warm south wind and consequent general thaw. Much damage resulted from the combined effects of the heavy rain, the melting of snow in mountains and the breaking of ice gorges in the Frazer River and tributaries.

High Tides.—Atlantic City, 21st, covered railroad tracks and meadows preventing arrival of trains; 26th, tracks and meadows again submerged, communication interrupted. Little Egg Harbor, 21st and 26th, washing out telegraph poles. Sandy Hook, 26th, undermining office building. Bangor, Me., 5th, wharves submerged. Santa Cruz, Cal., 30th, 31st, unusually high tide, followed by an extraordinary low tide, which was said to be 10 feet below average.

TEMPERATURE OF WATER.

The temperature of water, as observed in rivers and harbors at Signal Service stations, with the average depth at which observations were taken, is given in the table on the left hand side of chart No. III. Owing to ice &c., observations are wanting, as follows: Alpena, Detroit, Escanaba, Grand Haven, Sandusky and Toledo from 1st to 31st; Buffalo from 7th; Cleveland, 9th to 12th and from 17th; Milwaukee from 21st; Wilmington, 8th to 20th. Observations were taken at various times at Chicago and Marquette on 5 days, and at Duluth on 10 days.

ATMOSPHERIC ELECTRICITY.

Thunderstorms were frequent in Iowa, Missouri, Tennessee and the Ohio valley on the 4th and 5th, and the Gulf States from the 16th to the 19th; elsewhere, few or none were reported.

Atmospheric Electricity Interfering with Telegraphic Communication.—Silver City, N. M., 29th. Bismarck, 28th, very strong currents on wires in all directions. Fort Bennett, Dak., 29th, on wires in all directions.

Auroras.—The remarkable cloudiness of the month in the northern part of the United States prevented the display of auroras, even if they had occurred. At St. Vincent, Minn., however, auroras were observed on eight out of the eighteen evenings on which cloudiness did not prevail. The display of the 1st was probably general from Maine to Dakota, as it was observed at Cornish and Gardiner, Me., at Clinton, Cresco, and Independence, Iowa, Bismarck and St. Vincent. In the Lake region and the greater part of New England cloudy or stormy weather prevailed. On the 7th the aurora was observed at Newport, Mt. Washington, Cambridge, (Harvard University, a. m. of the 8th,) Mass., and at St. Vincent, Minn. Cloudy weather prevailed that night in the Lake region. On the 28th a display was noted at Eastport, Me., and Alpena, Mich., while cloudy weather prevailed at all intermediate stations. Displays were observed at Portland and Bangor, Me., on the 1st, a. m.,